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 NEWS  2  Dec 17  Expanded CAplus Coverage of US, Japanese, WIPO,
                  EPO, and German patents
 NEWS  3  Feb  1  Addition of Machine-Translated Abstracts to CAplus
 NEWS  4  Feb 28  Patent Information Now Searchable in CAOLD
 NEWS  5  Mar 20  INPADOC: PRODUCER WARNING ABOUT DATA DELAYS
 NEWS  6  Mar 22  NEW FEATURES IN INPADOC - RANGE SEARCHING AND NEW
                  SDI/UPDATE SEARCH FIELD
 NEWS  7  May  1  Beilstein Abstracts on STN - FILE BABS
 NEWS  8  May  1  RN CROSSOVER AND ANSWER SIZE LIMITS INCREASED
 NEWS  9  May  1  AIDSLINE has been reloaded
 NEWS 10  May  1  Searching Y2-K compliant Patent Numbers
 NEWS 11  May  9  Sequence Similarity Batch Search in DGENE
 NEWS 12  May 19  Weekly Statistics for New Entries now available
                  in INPADOC
 NEWS 13  May 22  CITED REFERENCES NOW AVAILABLE IN CAPLUS AND CA FILE
 NEWS 14  May 22  POSTPROCESSING OF SEARCH RESULTS MAY BE AFFECTED
                  BY ADDITION OF CITED REFERENCES TO CAPLUS, CA,
                  REGISTRY, CASREACT, MARPAT, and MARPATPREV

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FILE 'HOME' ENTERED AT 10:51:52 ON 23 MAY 2000

=> file registry

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                                                       ENTRY    SESSION
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STRUCTURE FILE UPDATES:   22 MAY 2000  HIGHEST RN 266002-75-9
DICTIONARY FILE UPDATES:  22 MAY 2000  HIGHEST RN 266002-75-9

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 11, 2000

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  conducting SmartSELECT searches.

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for details.

=> s triglyceride

           195 TRIGLYCERIDE
            20 TRIGLYCERIDES
L1         195 TRIGLYCERIDE
                 (TRIGLYCERIDE OR TRIGLYCERIDES)

=> s triglycerol

L2         176 TRIGLYCEROL

=> s linoleic acid?

           493 LINOLEIC
       4632063 ACID?
L3         476 LINOLEIC ACID?
                 (LINOLEIC(W)ACID?)

=> s (linoleic acid or isomers)

           493 LINOLEIC
       4625836 ACID
          7312 ACIDS
       4631193 ACID
                 (ACID OR ACIDS)
           476 LINOLEIC ACID
                 (LINOLEIC(W)ACID)
           200 ISOMERS
L4         676 (LINOLEIC ACID OR ISOMERS)

=> s (L1,L2,L3,L4)

L5        1046 ((L1 OR L2 OR L3 OR L4))

=> file caplus medline

COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                                29.70      29.85

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=> s L5

L6       54082 L5

=> dup rem

ENTER L# LIST OR (END):L6
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54082 ANSWERS REQUESTED EXCEEDS MAXIMUM ALLOWED OF 50000
You may process up to 50,000 answers per command.  Please try to
narrow your search until your resulting L# answer set is within the
maximum number of answers.

=> s L6 and (food or product)

L7        8827 L6 AND (FOOD OR PRODUCT)

=> s L7 and human

L8         735 L7 AND HUMAN

=> dup rem

ENTER L# LIST OR (END):L8

PROCESSING IS APPROXIMATELY  41% COMPLETE FOR L8
PROCESSING IS APPROXIMATELY  79% COMPLETE FOR L8
PROCESSING COMPLETED FOR L8
L9          701 DUP REM L8 (34 DUPLICATES REMOVED)

=> s L9 and octadecadienoic

L10        124 L9 AND OCTADECADIENOIC

=> dup rem

ENTER L# LIST OR (END):L10

PROCESSING COMPLETED FOR L10
L11         124 DUP REM L10 (0 DUPLICATES REMOVED)

=> s L11 and animal

L12         35 L11 AND ANIMAL

=> d L12 ibib ti so abs 1-10


L12  ANSWER 1 OF 35  CAPLUS  COPYRIGHT 2000 ACS
ACCESSION NUMBER:         2000:133497  CAPLUS
DOCUMENT NUMBER:          132:165586
TITLE:                    Methods for reducing atherosclerotic plaques
INVENTOR(S):              Kritchevsky, David
PATENT ASSIGNEE(S):       The Wistar Institute, USA
SOURCE:                   PCT Int. Appl., 42 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
     ---------------   ----  --------       ---------------  --------
     WO 2000009118      A1   20000224       WO 1999-US18505  19990812
         W:  AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
             KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,
             MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
             TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU,
             TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
             ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
             CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
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PRIORITY APPLN. INFO.: US 1998-96352 19980813
TI Methods for reducing atherosclerotic plaques
SO PCT Int. Appl., 42 pp.
CODEN: PIXXD2
AB A method for reducing atherosclerotic plaques includes administering an effective amt. of at least one fatty acid compn. to an **animal**, said fatty acid compn. having a carbon chain of at least 16 carbons in length, and wherein at least one pair of double bonds are in a conjugated position. Such a method and article of manufs. facilitating these methods may be useful for reducing atherosclerotic plaques in **humans**.
REFERENCE COUNT: 2
REFERENCE(S): (1) Medford; US 5380747 A 1995
(2) Terao; US 4857516 A 1989

L12 ANSWER 2 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 2000:98678 CAPLUS
TITLE: Erythrocyte fatty acid composition in term infants fed **human** milk or a formula enriched with a low eicosapentanoic acid fish oil for 4 months
AUTHOR(S): Lapillonne, A.; Brossard, N.; Claris, O.; Reygrobellet, B.; Salle, B. L.
CORPORATE SOURCE: Human Nutrition Research Centre, Hopital Edouard Herriot, Lyon, Fr.
SOURCE: Eur. J. Pediatr. (2000), 159(1/2), 49-53
CODEN: EJPEDT; ISSN: 0340-6199
PUBLISHER: Springer-Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
TI Erythrocyte fatty acid composition in term infants fed **human** milk or a formula enriched with a low eicosapentanoic acid fish oil for 4 months
SO Eur. J. Pediatr. (2000), 159(1/2), 49-53
CODEN: EJPEDT; ISSN: 0340-6199
AB When term infants are fed std. formula that does not contain long-chain polyunsatd. fatty acids (LC-PUFA), they still show lower levels of docosahexaenoic acid (DHA) in red blood cell (RBC) phospholipids by several weeks or months postnatally. This study was designed to evaluate a potential alternative for supplementing term infant formulas with DHA by adding a high-DHA/low-eicosapentanoic acid fish oil to levels similar to that in **human** milk (0.3%). A total of 37 term infants were included in the study at 3 days of life. DHA concns. remained stable between inclusion and 4 mo of life at around 8% of the RBC phospholipids in the LC-PUFA enriched formula-fed group whereas it decreased significantly in the std. formula-fed group. In the **human** milk-fed group, RBC DHA concns. at 4 mo of age were lower than that at birth and were correlated with the duration of breast feeding. A significant decrease of arachidonic acid between inclusion and 4 mo of age was obsd. in the enriched formula-fed group and reached a mean value at 4 mo, which was significantly lower than that obsd. in the **human** milk or std. formula-fed groups. Supplementing term formulas with a high-docosahexaenoic acid/low-eicosapentanoic acid fish oil up to 4 mo of age is efficient in improving docosahexaenoic acid status, however it increases the risk of impaired n-6 fatty acid status.
REFERENCE COUNT: 20
REFERENCE(S): (1) Agostoni, C; Pediatr Res 1995, V38, P262 CAPLUS
(2) Agostoni, C; Prostaglandins Leukot Essent Fatty Acids 1995, V53, P401 CAPLUS
(3) Anderson, J; Am J Clin Nutr 1999, V70, P525 CAPLUS
(4) Auestad, N; Pediatr Res 1997, V41, P1 CAPLUS
(5) Birch, E; Pediatr Res 1998, V44, P201 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 3 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:819238 CAPLUS
DOCUMENT NUMBER: 132:35192
TITLE: Method of altering nutritional components of milk

produced by a lactating **animal**
INVENTOR(S): Bauman, Dale E.; McGuire, Mark A.; Griinari, Mikko; Chouinard, P. Yvan
PATENT ASSIGNEE(S): Cornell Research Foundation, Inc., USA
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9966922 | A1 | 19991229 | WO 1998-US12970 | 19980624 |

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

TI Method of altering nutritional components of milk produced by a lactating **animal**
SO PCT Int. Appl., 31 pp.
CODEN: PIXXD2
AB The present invention alters mammary synthesis of fat to improve milk quality. These changes in milk compn. represent improvements in nutritional quality consistent with contemporary dietary recommendations. Of special importance is the disclosure of new data relating to specific conjugated linoleic acids (CLA), potent naturally occurring anti-carcinogens. In the course of an investigation to enhance milk content of conjugated linoleic acid, it was discovered that abomasal infusion of a single TFA isomer caused a marked milk fat depression. This observation was unexpected because the prior art has consistently shown that body fat and milk fat always show reciprocal changes in lactating cows and indicated that CLA's generally reduced body fat in growing **animals**. The current disclosure demonstrates that an increase in milk fat content of a specific TFA isomer, trans-10 C18:1 (J.M. Griinari et al., 1997, 1998) causes MFD (milk fat depression). This observation is in conflict with the prior art that taught that an increase in total TFA caused MFD. These results are applicable to other domestic lactating mammals (e.g., pigs). Upon the infusion of CLA, a portion of the CLA is transferred to the mammary gland and incorporated into milk fat. Hence, the methods disclosed increase the levels of CLA found in milk, thereby improving the nutritional benefits to **human** health assocd. with CLA.
REFERENCE COUNT: 5
REFERENCE(S):
(1) Erdman; US 5416115 A 1995 CAPLUS
(2) Luhman; US 5503112 A 1996
(3) Rawlings; US 4216234 A 1980
(4) Satter; US 5770247 A 1998
(5) Scott; US 3925560 A 1975 CAPLUS

L12 ANSWER 4 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:679308 CAPLUS
DOCUMENT NUMBER: 132:76359
TITLE: Age-size influences on tissue-lipid quality of the sturgeon Acipenser naccarii from intensive culture
AUTHOR(S): Garcia-Gallego, M.; Sanz, A.; Domezain, A.; De la Higuera, M.
CORPORATE SOURCE: Dept. Biologia Animal y Ecologia, Fac. Ciencias, Univ. Granada (UGR), Granada, E-18071, Spain
SOURCE: J. Appl. Ichthyol. (1999), 15(4-5), 261-264
CODEN: JAICEF; ISSN: 0175-8659
PUBLISHER: Blackwell Wissenschafts-Verlag GmbH

DOCUMENT TYPE: Journal
LANGUAGE: English
TI Age-size influences on tissue-lipid quality of the sturgeon Acipenser naccarii from intensive culture
SO J. Appl. Ichthyol. (1999), 15(4-5), 261-264
CODEN: JAICEF; ISSN: 0175-8659
AB One approach into the lipid requirements and the quality evaluation of the sturgeon Acipenser naccarii is the study of the fatty acid compn. of lipids in several tissues. Four different ages of this new target species for freshwater culture were sampled from a fish farm. Oleic and palmitic acids were the most abundant fatty acids in all age groups and tissues sampled. High quantities of 16:1n7, 20:1n9, 22:1n9, 20:5n3 and 22:6n3 were also detected. The overall pattern closely resembles that of other freshwater fish species. No important differences were found in muscle age. The high lipid level and the relatively high proportion of HUFAn3 fatty acids renders this species as a highly desirable **food** for **human** consumption.
REFERENCE COUNT: 13
REFERENCE(S): (1) Abrami, G; Comp Biochem Physiol 1992, V101B, P79 CAPLUS
(2) Agradi, E; Comp Biochem Physiol 1993, V105A(1), P187 CAPLUS
(3) Argyropoulou, V; Comp Biochem Physiol 1992, V101A, P129 CAPLUS
(5) Fynn-Aikins, K; Aquaculture 1992, V105, P61 CAPLUS
(7) Henderson, R; Prog Lip Res 1987, V26, P281 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 5 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:673079 CAPLUS
DOCUMENT NUMBER: 131:295578
TITLE: Branched-chain fatty acid anticancer compounds and related production process
INVENTOR(S): Yang, Zhenhua
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9953086 | A1 | 19991021 | WO 1999-US6525 | 19990414 |
| W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| AU 9935461 | A1 | 19991101 | AU 1999-35461 | 19990414 |
| PRIORITY APPLN. INFO.: | | | US 1998-PV81712 | 19980414 |
| | | | US 1998-173681 | 19981016 |
| | | | WO 1999-US6525 | 19990414 |

OTHER SOURCE(S): MARPAT 131:295578
TI Branched-chain fatty acid anticancer compounds and related production process
SO PCT Int. Appl., 68 pp.
CODEN: PIXXD2
AB A group of specific branched-chain fatty acids is provided having significant anticancer effects on **human** and **animals**.
Also provided are methods of making the compds. of the invention using

either chem. synthesis or biosynthetic methods, as well as methods of treating cancer.
REFERENCE COUNT: 3
REFERENCE(S): (1) Deguchi; US 4985466 A 1991 CAPLUS
(2) Hansen; Biochem J 1953, V53, P374
(3) Yang; CA 2020633 A 1997, P7

L12 ANSWER 6 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:644554 CAPLUS
DOCUMENT NUMBER: 131:336207
TITLE: Nutritional status of institutionalised elderly in an old age home in Mysore city: dietary habits and **food** and nutrient intakes
AUTHOR(S): Sumathi, A.; Malleshi, N. G.; Rao, S. Venkat
CORPORATE SOURCE: Department of Grain Science and Technology, Central Food Technological Research Institute, Mysore, 570 013, India
SOURCE: Nutr. Res. (N. Y.) (1999), 19(10), 1459-1469
CODEN: NTRSDC; ISSN: 0271-5317
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
TI Nutritional status of institutionalised elderly in an old age home in Mysore city: dietary habits and **food** and nutrient intakes
SO Nutr. Res. (N. Y.) (1999), 19(10), 1459-1469
CODEN: NTRSDC; ISSN: 0271-5317
AB **Food** and dietary intake survey was carried out in an institutionalized elderly population aged 60 yr and over, grouped 60-74 yr and .gtoreq.75 yr. Gross deficiencies were obsd. in several major as well as minor nutrients. Calorie consumption was inadequate in both sexes, and in women calorie intakes were barely adequate to meet the basal metab. Deficient intakes of protein were obsd. averaging at 6 to 9 protein energy % in both the sexes. Consumption of visible fat was appreciably low in both men and women. Protein and fat intakes from **animal** sources were much lower as compared to plant sources. Among the vitamins, marked deficiencies in folic acid and vitamin B12 intakes were noted besides other water-sol. vitamins. Dietary deficiencies of Fe, Cu, Zn, Mn, and Mg were obsd. The Ca:P ratio of the diet was considerably altered to 1:2. All subjects in the older age group (.gtoreq.75 yr) consumed <2/3 the RDA for Mg, Fe, Zn, Cu and Mn.
REFERENCE COUNT: 13
REFERENCE(S): (1) Achaya, K; J scient ind Res 1987, V46, P112
(2) Dawson-Hughes; J Nutr 1996, V126, P1165S CAPLUS
(5) Horwath, C; J Nutr Elder 1989, V9, P17 MEDLINE
(9) Monget, A; Internat J Vit Nutr Res 1996, V66, P71 CAPLUS
(11) Russell, R; Am J Clin Nutr 1993, V58, P4 MEDLINE
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 7 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:613659 CAPLUS
DOCUMENT NUMBER: 131:228021
TITLE: Conjugated linoleic acid compositions
INVENTOR(S): Saebo, Asgeir; Skarie, Carl; Jerome, Daria; Haraldsson, Gudmunder
PATENT ASSIGNEE(S): Conlinco, Inc., USA
SOURCE: PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9947135 | A1 | 19990923 | WO 1999-US5806 | 19990317 |

W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

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|---|---|---|---|---|---|
| US 6015833 | A | 20000118 | US 1998-42767 | 19980317 | |
| AU 9931886 | A1 | 19991011 | AU 1999-31886 | 19990317 | |
| EP 950410 | A1 | 19991020 | EP 1999-105497 | 19990317 | |

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

| | | | | |
|---|---|---|---|---|
| WO 2000009163 | A1 | 20000224 | WO 1999-US18094 | 19990810 |

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

| | | | |
|---|---|---|---|
| WO 2000018944 | A1 | 20000406 | WO 1999-US22126 | 19990923 |

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

| | | |
|---|---|---|
| PRIORITY APPLN. INFO.: | US 1998-42538 | 19980317 |
| | US 1998-42767 | 19980317 |
| | US 1998-132593 | 19980811 |
| | US 1998-160416 | 19980925 |
| | WO 1999-US5806 | 19990317 |

TI Conjugated linoleic acid compositions

SO PCT Int. Appl., 57 pp.
CODEN: PIXXD2

AB Novel compns. contg. conjugated linoleic acids are efficacious as **animal** feed additives and **human** dietary supplements. Linoleic acid is converted to its conjugated forms by a novel method in which the resulting compn. is low in certain unusual isomers compared to conventional conjugated linoleic **products**. The process involves dissolving an alkali compatible with a nonaq. medium (e.g. KOH, CsOH, CsSO3, NEt4OH) in propylene glycol, adding a seed oil contg. .gtoreq.50% linoleic acid, isomerizing by heating under an inert gas to 130-165.degree., sepg. the fatty acid fraction by acidification, and optional further purifn. and dehydration. The linoleic acid is converted .gtoreq.90% to conjugated cis-9,trans-11- and trans-10,cis-12-**octadecadienoic** acids; the **product** contains <1% 11,13-isomers, <1% 8,10-isomers, <1% trans,trans-isomers, and <1% total unidentified linoleic acid species. Sunflower and safflower oils are preferred, owing to their high native 9,12-linoleic acid content and low levels of sterols, phospholipids, and other residues.

REFERENCE COUNT: 2

REFERENCE(S):
(1) Belury, M; Nut Rev 1995, V53(4), P83
(2) Emken; US 3729379 A 1973 CAPLUS

L12 ANSWER 8 OF 35 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1999:602136 CAPLUS

DOCUMENT NUMBER: 131:285850

TITLE: Trans fatty acids in **human** milk are inversely associated with concentrations of essential

all-cis n-6 and n-3 fatty acids and determine trans, but not n-6 and n-3, fatty acids in plasma lipids of breast-fed infants

AUTHOR(S): Innis, Sheila M.; King, D. Janette

CORPORATE SOURCE: Department of Paediatrics, University of British Columbia, Vancouver, BC, V5Z 4H4, Can.

SOURCE: Am. J. Clin. Nutr. (1999), 70(3), 383-390
CODEN: AJCNAC; ISSN: 0002-9165

PUBLISHER: American Society for Clinical Nutrition

DOCUMENT TYPE: Journal

LANGUAGE: English

TI Trans fatty acids in **human** milk are inversely associated with concentrations of essential all-cis n-6 and n-3 fatty acids and determine trans, but not n-6 and n-3, fatty acids in plasma lipids of breast-fed infants

SO Am. J. Clin. Nutr. (1999), 70(3), 383-390
CODEN: AJCNAC; ISSN: 0002-9165

AB **Human** milk fatty acid compn. varies with maternal dietary fat compn. Hydrogenated dietary oils with trans fatty acids may displace cis n-6 and n-3 unsatd. fatty acids or have adverse effects on their metab. The effects of milk trans, n-6, and n-3 fatty acids in breast-fed infants are unclear, although the n-6 and n-3 fatty acids are important in infant growth and development. The relations between trans and cis unsatd. fatty acids in milk and blood plasma phospholipids and triacylglycerols of breast-fed infants and the major maternal dietary sources of trans fatty acids were studied. Milk samples from 103 mothers with exclusively breast-fed 2-mo-old infants, blood samples from 62 infants, and 3-day dietary records from 21 mothers were collected. The mean % of trans fatty acids was 7.1.+-.0.32% in milk, 6.5.+-.0.33% in infant triacylglycerols, and 3.7.+-.0.16% in infant phospholipids. Milk trans fatty acids, .alpha.-linolenic acid (C18:3n-3), arachidonic acid (C20:4n-6), docosahexaenoic acid (C22:6n-3), and linoleic acid (C18:2n-6) were each related to the same fatty acid in infant plasma phospholipids. Milk trans fatty acids were inversely related to milk C18:2n-6 and C18:3n-3, but not to milk or infant plasma C20:4n-6 or C22:6n-3. The trans fatty acids represented 7.7% of maternal total fat intake (2.5% total energy); the major dietary sources were bakery **products** and breads (32%), snacks (14%), fast **foods** (11%), and margarines and shortenings (11%). Thus, there were comparable concns. of trans fatty acids in the maternal diet, breast milk, and plasma triacylglycerols of breast-fed infants. Prepd. **foods** were the major dietary source of trans fatty acids.

REFERENCE COUNT: 32

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ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 9 OF 35 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1999:586192 CAPLUS

DOCUMENT NUMBER: 132:120719

TITLE: Metabolic suppression of platelet-type 12-lipoxygenase in **human** uterine cervix with invasive carcinoma

AUTHOR(S): Nigam, Santosh; Kumar, G. Sravan; Sutherland, Mark; Schewe, Tankred; Ikawa, Hiroshi; Yamasaki, Yoshikazu; Ueda, Natsuo; Yamamoto, Shozo

CORPORATE SOURCE: Eicosanoid Research Division, Gynaecology Department, Benjamin Franklin University Medical Centre, Free University Berlin, Berlin, D-12200, Germany

SOURCE: Int. J. Cancer (1999), 82(6), 827-831

CODEN: IJCNAW; ISSN: 0020-7136
PUBLISHER: Wiley-Liss, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
TI Metabolic suppression of platelet-type 12-lipoxygenase in **human** uterine cervix with invasive carcinoma
SO Int. J. Cancer (1999), 82(6), 827-831
CODEN: IJCNAW; ISSN: 0020-7136
AB Several types of lipoxygenases with various functions occur in mammalian cells. Although the presence of 12-lipoxygenase activity has been reported in uterine tissues, neither its type nor its biol. functions have yet been established. Moreover, the putative role of uterine 12-lipoxygenase in cervical cancer has not been addressed before. Homogenates of uterine tissues from women without cancer and from patients with invasive cervical carcinoma were incubated with (I-14C)-arachidonic acid under various conditions and the labeled reaction **products** were analyzed both by thin-layer chromatog. and by high-pressure liq. chromatog. The 12-Lipoxygenase protein was estd. by Western blot using anti-serum against recombinant **human** platelet-type 12-lipoxygenase. Highest concns. and activities of 12-lipoxygenase were found in the exocervix. The formation of 12S-hydroxy-5Z,8Z,10E,14Z-eicosatetraenoic acid (12-HETE) was stimulated by micromolar concns. of 13S-hydroperoxy-9Z,11E-**octadecadienoic** acid, suggesting metabolic control of the 12-lipoxygenase activity via the hydroperoxide tone. Immunohistochem. investigation revealed that the enzyme is mainly located in the squamous epithelium, and is of platelet-type. Significantly lower values for the 12-HETE formation were found in samples from patients with invasive cervical carcinoma, whereas the amt. of immunochem. detectable 12-lipoxygenase protein was unaltered. At the same time the expression level of the bcl-2 gene were enhanced. Thus, it is concluded that during carcinogenesis the hydroperoxide-reducing capacity of the uterine cervix tissue is enhanced, possibly mediated by bcl-2 protein, and in turn metabolically suppresses the 12-lipoxygenase activity. Furthermore, the data suggest an anti-carcinogenic action of 12-lipoxygenase in **human** cervix, in contrast to its reported pro-carcinogenic action in breast cancer.
REFERENCE COUNT: 22
REFERENCE(S):
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ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 10 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:506620 CAPLUS
DOCUMENT NUMBER: 131:349883
TITLE: Increased cerebral cortical lipid peroxidation and abnormal phospholipids in aged homozygous apoE-deficient C57BL/6J mice
AUTHOR(S): Montine, Thomas J.; Montine, Kathleen S.; Olson, Sandra J.; Graham, Doyle G.; Roberts, L. Jackson, II.; Morrow, Jason D.; Linton, MacRae F.; Fazio, Sergio; Swift, Larry L.
CORPORATE SOURCE: Department of Medicine, Department of Pathology, Department of Pharmacology, and the Center for Molecular Neurosciences, Vanderbilt University Medical Center, Nashville, TN, 37232, USA
SOURCE: Exp. Neurol. (1999), 158(1), 234-241
CODEN: EXNEAC; ISSN: 0014-4886
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English

TI Increased cerebral cortical lipid peroxidation and abnormal phospholipids in aged homozygous apoE-deficient C57BL/6J mice
SO Exp. Neurol. (1999), 158(1), 234-241
CODEN: EXNEAC; ISSN: 0014-4886
AB Aged homozygous apolipoprotein E gene-deficient (apoE -/-) mice have been proposed as an exptl. model for the role of **human** apoE isoforms in Alzheimer's disease (AD). However, results from different labs. have been in conflict regarding the presence or absence of neurodegeneration in these mice. Moreover, despite apoE being the major lipid trafficking mol. in the central nervous system, there has been no investigation of brain lipid levels in apoE -/- mice. Here, the authors have examd. male and female apoE -/- and control mice aged 10 to 12 mo, testing the hypothesis that lack of apoE leads to some of the neuropathol. changes seen in AD. The results failed to demonstrate significant neurodegeneration, histopathol. changes, or redn. in cerebral cortical synaptophysin in apoE -/- mice. However, a significant redn. in cerebral cortical phospholipids and their constituent fatty acids, as well as elevated lipid peroxidn. **products** was obsd. in apoE -/- mice compared to apoE +/+ mice with the same genetic background. The results suggest that the brains of aged apoE -/- mice display some of the lipid abnormalities assocd. with AD; however, these changes alone, at the magnitudes achieved in the apoE -/- mice, do not directly lead to the major neurodegenerative changes of AD. (c) 1999 Academic Press.
REFERENCE COUNT: 54
REFERENCE(S): (1) Anderson, R; Neuroscience 1998, V85, P93 CAPLUS
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ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d L12 ibib ti so abs 20-35

L12 ANSWER 20 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1997:390697 CAPLUS
DOCUMENT NUMBER: 127:2744
TITLE: Method for ex vivo proliferation and differentiation of adult pancreatic islet cells, media useful therefor and uses thereof
INVENTOR(S): Soon-Shiong, Patrick; Varsanyi-Nagy, Maria; Ferreri, Kevin; Moloney, Molly; Heintz, Roswitha
PATENT ASSIGNEE(S): Vivorx, Inc., USA; Soon-Shiong, Patrick; Varsanyi-Nagy, Maria; Ferreri, Kevin; Moloney, Molly; Heintz, Roswitha
SOURCE: PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9716536 | A1 | 19970509 | WO 1996-US16396 | 19961011 |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG | | | | |
| AU 9674439 | A1 | 19970522 | AU 1996-74439 | 19961011 |
| PRIORITY APPLN. INFO.: | | | US 1995-558591 | 19951030 |

WO 1996-US16396 19961011

TI Method for ex vivo proliferation and differentiation of adult pancreatic islet cells, media useful therefor and uses thereof

SO PCT Int. Appl., 68 pp.
CODEN: PIXXD2

AB A method for inducing the proliferation and differentiation of neonatal and/or adult **human** or non-**human** pancreatic islets to produce a **product** useful, for example, as a therapeutic agent for treatment of diabetes was developed. The method involves a series of complex cell culture media contg. necessary nutrients and growth factors, a **human** cytokine (hepatocyte growth factor or scatter factor), a microgravity culture vessel for promoting 3-dimensional growth, and mol. biol. assays for measuring insulin promoter activity. A method for providing a hybrid organoid comprising a combination of donor and recipient cell types is also described.

L12 ANSWER 21 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1997:322858 CAPLUS
DOCUMENT NUMBER: 127:33449
TITLE: Simplified preparation of a refined milk formula comparable to rat's milk: Influence of the formula on development of the gut and brain in artificially reared rat pups
AUTHOR(S): Kanno, Takahiro; Koyanagi, Namiko; Katoku, Youli; Yonekubo, Akie; Yajima, Takaji; Kuwata, Tamotsu; Kitagawa, Hiroshi; Harada, Etsumori
CORPORATE SOURCE: Department of Nutritional Research, Nutrition Science Institute, Meiji Milk Products Co., Ltd., Tokyo, 189, Japan
SOURCE: J. Pediatr. Gastroenterol. Nutr. (1997), 24(3), 242-252
CODEN: JPGND6; ISSN: 0277-2116
PUBLISHER: Lippincott-Raven
DOCUMENT TYPE: Journal
LANGUAGE: English

TI Simplified preparation of a refined milk formula comparable to rat's milk: Influence of the formula on development of the gut and brain in artificially reared rat pups

SO J. Pediatr. Gastroenterol. Nutr. (1997), 24(3), 242-252
CODEN: JPGND6; ISSN: 0277-2116

AB Milk formulas for artificially reared (AR) rat pups are mostly based on complex cow's milk **products**, prepd. by laborious and time-consuming processes. The aim of this study was to develop a simplified procedure for prepg. a refined formula and to examine its influences on gut and brain development. The formula comprised a combination of purified cow's casein and whey proteins, five kinds of edible oil, minerals, and vitamins. Detailed analyses showed that the compn. of macro- and micro-nutrients, osmolarity, and pH of the new formula closely resembled those of rat's milk. Rat pups, each with an intragastric cannula implanted at age 5 days, were artificially reared for the following 10-15 days. The body wt. gain of AR pups matched that of mother-reared (MR) pups. Histoplanimetrical analyses showed that the small intestine in AR pups was more developed in relation to area of a transverse section, no. and length of villi, and thickness of tunica muscularis than that of MR pups. Fat components in the formula influenced the fatty acid compn. and the cholesterol-to-phospholipid ratio in the small intestinal microvillus membrane (MVM) of AR pups, but not the MVM fluidity. Brain wt. was not significantly different between the two groups at age 15-20 days. This formula is useful for artificial rearing of rats and for identifying dietary components contributing to metabolic adaptation during the suckling period.

L12 ANSWER 22 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1997:122150 CAPLUS
DOCUMENT NUMBER: 126:207772
TITLE: Characterization of a 15-lipoxygenase in **human**

breast carcinoma BT-20 cells: stimulation of 13-HODE formation by TGF.alpha./EGF
AUTHOR(S): Reddy, Nagi; Everhart, Angela; Eling, Thomas; Glasgow, Wayne
CORPORATE SOURCE: Lab. Mol. Biophys., NIEHS, Research Triangle Park, NC, 27709, USA
SOURCE: Biochem. Biophys. Res. Commun. (1997), 231(1), 111-116
CODEN: BBRCA9; ISSN: 0006-291X
PUBLISHER: Academic
DOCUMENT TYPE: Journal
LANGUAGE: English

TI Characterization of a 15-lipoxygenase in **human** breast carcinoma BT-20 cells: stimulation of 13-HODE formation by TGF.alpha./EGF
SO Biochem. Biophys. Res. Commun. (1997), 231(1), 111-116
CODEN: BBRCA9; ISSN: 0006-291X
AB Epidemiol. and exptl. data suggest a role for polyunsatd. fatty acids in the etiol. of breast cancer. The authors have studied arachidonic acid and linoleic acid metab. in the **human** breast carcinoma cell line BT-20 which overexpresses both EGF receptor and the homologous erbB-2 oncogene **product**. EGF and TGFa stimulated DNA synthesis in these cells which was attenuated by the addn. of a lipoxygenase inhibitor, NDGA. The addn. of a prostaglandin H synthase inhibitor did not alter DNA synthesis. Anal. studies reveal little arachidonic acid metab. while linoleic acid was metabolized to 13-hydroxyoctadecadienoic acid (13-HODE). The formation of 13-HODE was inhibited by the addn. of NDGA and was dependent on EGF or TGF.alpha.. These results suggest the metab. of linoleic acid by a n-6 or 15-lipoxygenase regulated by EGF/TGF.alpha.. RT-PCR was used to isolate a clone, and sequenced the cDNA for this enzyme and it was found to be identical to the **human** 15-lipoxygenase previously characterized from **human** pulmonary tissue. EGF/TGF.alpha. did not alter the expression of this enzyme suggesting a potential post-translational regulation of activity. This study provides a link between metab. of linoleic acid and growth factor regulation of cell proliferation in a **human** breast carcinoma cell line.

L12 ANSWER 23 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1996:14479 CAPLUS
DOCUMENT NUMBER: 124:83682
TITLE: Transgenic rabbits with the integrated **human** 15-lipoxygenase gene driven by a lysozyme promoter: macrophage-specific expression and variable positional specificity of the transgenic enzyme
AUTHOR(S): Shen, Jianhe; Kuehn, Hartmut; Petho-Schramm, Attila; Chan, Lawrence
CORPORATE SOURCE: Dep. of Cell Biology and Medicine, Baylor College of Medicine, Houston, TX, 77030, USA
SOURCE: FASEB J. (1995), 9(15), 1623-31
CODEN: FAJOEC; ISSN: 0892-6638
DOCUMENT TYPE: Journal
LANGUAGE: English

TI Transgenic rabbits with the integrated **human** 15-lipoxygenase gene driven by a lysozyme promoter: macrophage-specific expression and variable positional specificity of the transgenic enzyme
SO FASEB J. (1995), 9(15), 1623-31
CODEN: FAJOEC; ISSN: 0892-6638
AB Lipoxygenase is expressed in foamy macrophages of atherosclerotic lesions and has been implicated in the oxidative modification of low-d. lipoprotein during early stages of atherogenesis. To establish an **animal** model of 15-lipoxygenase over-expression, the authors created transgenic rabbits that express at high level the 15-lipoxygenase in monocyte-derived macrophages but not in liver, heart, kidney, lung, or other tissue. The expression level of the enzyme in monocyte-derived macrophages is comparable to that of interleukin-4 (IL-4)-treated **human** monocytes, but more than 20-fold higher than that in macrophages of normal rabbits. The transgenic enzyme oxygenates linoleic acid to 13S-hydroperoxy-9,11 (Z,E)-**octadecadienoic** acid

(13-HODE), and arachidonic acid to a mixt. of 12S-HETE and 15S-HETE. The 12S-HETE/15S-HETE ratio varied between 0.3 and 5.4, indicating a remarkable variability in the positional specificity of the transgenic enzyme. Macrophages from normal rabbits consistently produced 12S-HETE as the major oxygenation **product**. The 15-lipoxygenase-overexpressing rabbits may be used for further mechanistic studies on the implication of lipoxygenase in atherogenesis; they are also an ideal model for testing the in vivo action of 15-lipoxygenase inhibitors.

L12 ANSWER 24 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1994:133025 CAPLUS
DOCUMENT NUMBER: 120:133025
TITLE: Linoleic acid as feed and **food** additive for preventing weight loss and anorexia, due to immune stimulation.
INVENTOR(S): Cook, Mark E.; Pariza, Michael W.
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: Eur. Pat. Appl., 11 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 13
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| EP 579901 | A1 | 19940126 | EP 1993-105105 | 19930327 |
| EP 579901 | B1 | 19960306 | | |
| R: BE, CH, DE, FR, GB, IE, LI | | | | |
| US 5430066 | A | 19950704 | US 1992-875896 | 19920429 |

PRIORITY APPLN. INFO.: US 1992-875896 19920429
TI Linoleic acid as feed and **food** additive for preventing weight loss and anorexia, due to immune stimulation.
SO Eur. Pat. Appl., 11 pp.
CODEN: EPXXDW
AB **Animal** feed or **human food** which contains added free linoleic acid or conjugated linoleic acids (CLA) can enhance growth and prevent anorexia and wt. loss due to immune stimulation (e.g., endotoxin exposure) and the adverse effects of catabolic hormones (i.e., IL-1). The CLAs are 9,11- and 10,12-**octadecadienoic** acid. Feed supplementation with 0.5% CLA suppressed the neg. effect of inoculation with Escherichia coli 0111:B4 endotoxin on the wt. gain of chicken.

L12 ANSWER 25 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1993:598296 CAPLUS
DOCUMENT NUMBER: 119:198296
TITLE: Processive interfacial catalysis by mammalian 85-kilodalton phospholipase A2 enzymes on **product**-containing vesicles: Application to the determination of substrate preferences
AUTHOR(S): Hanel, Arthur M.; Schuettel, Stefan; Gelb, Michael H.
CORPORATE SOURCE: Dep. Chem., Univ. Washington, Seattle, WA, 98195, USA
SOURCE: Biochemistry (1993), 32(23), 5949-58
CODEN: BICHAW; ISSN: 0006-2960
DOCUMENT TYPE: Journal
LANGUAGE: English
TI Processive interfacial catalysis by mammalian 85-kilodalton phospholipase A2 enzymes on **product**-containing vesicles: Application to the determination of substrate preferences
SO Biochemistry (1993), 32(23), 5949-58
CODEN: BICHAW; ISSN: 0006-2960
AB Substrate specificities of the **human** and rat kidney 85-kDa phospholipase A2 enzymes (hmw-PLA2) have been detd. under conditions in which hydrolysis of substrate vesicles occurs without the desorption of enzyme from the interface (scooting mode catalysis). The rat kidney enzyme binds to vesicles of 1-oleoyl-2-palmitoyl-sn-glycero-3-

phosphocholine (OPPC), which contain the substrate 1-stearoyl-2-arachidonyl-sn-glycero-3-phosphocholine (SAPC) and 10 mol % arachidonic acid (20:4) and 1-stearoyl-sn-glycero-3-phosphocholine (S-lyso-PC) as the hydrolysis reaction **products**, with a second-order rate const. kon .simeq. 2 .times. 107 M-1 s-1. Upper limits of koff .ltoreq. 3 .times. 10-4 s-1 and KD .ltoreq. 15 pM for the dissocn. rate and equil. consts., resp., are estd. from the kinetic vesicle binding measurements. The initial rates of hydrolysis of either radiolabeled 1-stearoyl-2-arachidonyl-sn-glycero-3-phosphoserine (3H-SAPS), -phosphoethanolamine (3H-SAPE), -phosphoinositol (14C-SAPI), or -phosphate (3H-SAPA) and either 3H-SAPC or 14C-SAPC, which were incorporated into **product**-contg. OPPC vesicles, were simultaneously measured with dual isotope radiometric assays. The plasmenylcholine 1-O-(Z-hexadec-1'-enyl)-2-arachidonyl-sn-glycero-3-phosphocholine (3H-PlasAPC) was also tested. Relative substrate specificity consts. (kcat/KM* values) were detd. from the concns. and initial rates of hydrolysis of the labeled substrates; the rank order of the values is SAPC .simeq. SAPI .simeq. PlasAPC > SAPE > SAPA .simeq. SAPS. The maximal difference in specificity consts. is 3.5-fold, indicating that the hmw-PLA2 does not significantly discriminate between phospholipids with different polar head groups. The diglyceride 1-stearoyl-2-arachidonyl-sn-glycerol is not a substrate for the **human** hmw-PLA2. Two mixts. of 1-stearoyl-2-acyl-sn-glycero-3-phosphocholine, which have different sn-2 acyl chains, were prepd. and compared to SAPC as substrates. One mixt. contained naturally-occurring unsatd. fatty acyl chains and the other contained a mixt. of 20:4, all of its partially hydrogenated analogs (20:3, 20:2, and 20:1), and arachidic acid (20:0). The order of preference for the **human** hmw-PLA2 is sn-2-20:4 > sn-2-.alpha.-linolenoyl > sn-2-linoleoyl > sn-2-oleoyl .gtoreq. sn-2-palmitoleoyl. The preference order of the 20-carbon acyl chains is 20:4 > 20:3 > 20:2 > 20:1 > 20:0, and there is a preference for positional isomers with double bonds closest to the sn-2 ester. In contrast, the **human** non-pancreatic-secreted 14-kDa phospholipase A2 does not discriminate significantly between the 20-carbon substrates.

L12 ANSWER 26 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1993:557637 CAPLUS
DOCUMENT NUMBER: 119:157637
TITLE: Abnormal polyunsaturated lipid metabolism in the obese Zucker rat, with partial metabolic correction by .gamma.-linolenic acid administration
AUTHOR(S): Phinney, Stephen D.; Tang, Anna B.; Thurmond, Debbie C.; Nakamura, Manabu T.; Stern, Judith S.
CORPORATE SOURCE: Dep. Intern. Med., Univ. California, Davis, CA, USA
SOURCE: Metab., Clin. Exp. (1993), 42(9), 1127-40
CODEN: METAAJ; ISSN: 0026-0495
DOCUMENT TYPE: Journal
LANGUAGE: English
TI Abnormal polyunsaturated lipid metabolism in the obese Zucker rat, with partial metabolic correction by .gamma.-linolenic acid administration
SO Metab., Clin. Exp. (1993), 42(9), 1127-40
CODEN: METAAJ; ISSN: 0026-0495
AB Below-normal proportions of phospholipid (PL) arachidonic acid (20:4.omega.6) have been reported in serum from obese **humans** and in liver from obese Zucker rats. This implies an abnormality of 20:4.omega.6 formation from linoleic acid (18:2.omega.6), possibly in the .DELTA.6 desaturase step, or alternatively an abnormality in the catabolism or distribution of arachidonate. The authors previously speculated that a reduced proportion of 20:4.omega.6 in hepatic PL could contribute to the etiol. of genetic obesity. Providing 18:3.omega.6 would bypass .DELTA.6 desaturase and possibly normalize hepatic PL 20:4.omega.6. Therefore weanling Zucker rats were given free access to a defined diet (11% of energy as soy oil) and gavaged daily with 100 .mu.L of either black currant oil conc. ([BCO] 8% 18:2.omega.6 and 70% 18:3.omega.6) or soy oil ([Soy] 55% 18:2.omega.6 and <0.1% 18:3.omega.6). Groups of lean and obese **animals** were randomized to receive Soy or BCO in a 2

.times. 2 design; obese and lean rats were fed a stock diet (nongavaged ref.). All groups of lean rats had identical wt. gain; **food** intake of Soy lean and BCO lean did not differ. The obese ref. **animals** and Soy obese **animals** did not differ in wt. gain. However, BCO obese **animals** ate less **food**, gained less wt., and had lower percent body fat compared with the Soy obese **animals**. The fatty acid constituents from serum, liver, and adipose tissue showed marked differences between lean and obese **animals**. Hepatic PL 20:4.omega.6 was lower in Soy obese than in lean, but was normalized by BCO gavage (diet effect). The paucity of hepatic PL 20:4.omega.6 was not due to reduced desaturase activity, as the proportions of other desaturase **products** (20:3.omega.6, 20:3.omega.9, 20:5.omega.3) were significantly elevated in Soy obese rat liver and serum. Serum and hepatic cholesteryl ester 20:4.omega.6 levels were elevated in obese vs. lean rats, indicating abnormal arachidonate distribution in the obese Zucker rat. Because BCO selectively reduced wt. gain and percent body fat in obese Zucker rats, the authors' results imply a role for abnormal .omega.6 fatty acid metab. in the etiol. of Zucker obesity. However, due to the potential risks of enhancing tissue 20:4.omega.6, great caution is advised in extrapolating the authors' results with BCO to the treatment of obesity in **humans**.

L12 ANSWER 27 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1993:536156 CAPLUS
DOCUMENT NUMBER: 119:136156
TITLE: Alternative route for the biosynthesis of polyunsaturated fatty acids in K562 cells
AUTHOR(S): Naval, Javier; Martinez-Lorenzo, Maria Jose; Marzo, Isabel; Desportes, Paula; Pineiro, Andres
CORPORATE SOURCE: Fac. Cienc., Univ. Zaragoza, Zaragoza, 50009, Spain
SOURCE: Biochem. J. (1993), 291(3), 841-5
CODEN: BIJOAK; ISSN: 0306-3275
DOCUMENT TYPE: Journal
LANGUAGE: English
TI Alternative route for the biosynthesis of polyunsaturated fatty acids in K562 cells
SO Biochem. J. (1993), 291(3), 841-5
CODEN: BIJOAK; ISSN: 0306-3275
AB K562 **human** leukemia cells lack .DELTA.6-desaturase activity. However, they synthesize long-chain polyunsatd. fatty acids (PUFA) from linoleic (C18:2(9,12)) and linolenic (C18:3(9,12,15)) acids, by reactions involving a C2 chain elongation followed by a .DELTA.5-desatn. step and, to some extent, a further elongation. The main **products** formed were sepd. by argentation TLC and identified by gas chromatog. as the uncommon fatty acids C20:3(5,11,14) and C20:4(5,11,14,17) resp. These acids were also produced when cells were supplemented with C20:2(11,14) or C20:3(11,14,17) resp. The presence of a .DELTA.5-desaturase was further confirmed by using its corresponding normal substrates, C20:3(8,11,14) and C20:4(8,11,14,17), which led to C20:4(5,8,11,14) and C20:5(5,8,11,14,17) resp. On the other hand, a high .DELTA.9-desaturase activity, but no .DELTA.4-desaturase activity, was detected in K562 cells. These results indicate the existence of an alternative pathway, involving .DELTA.5-desaturase, which is the only route for PUFA biosynthesis in K562 cells. This pathway may be relevant for the biosynthesis of PUFA in cells lacking .DELTA.6-desaturase activity.

L12 ANSWER 28 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1993:184180 CAPLUS
DOCUMENT NUMBER: 118:184180
TITLE: Effect of inhibitors of eicosanoid metabolism on release of [3H]noradrenaline from the **human** neuroblastoma, SH-SY5Y
AUTHOR(S): Vaughan, Peter F. T.; Murphy, Mary G.; Ball, Stephen G.
CORPORATE SOURCE: Dep. Cardiovasc. Stud., Univ. Leeds, Leeds, UK
SOURCE: J. Neurochem. (1993), 60(4), 1365-71

CODEN: JONRA9; ISSN: 0022-3042
DOCUMENT TYPE: Journal
LANGUAGE: English
TI Effect of inhibitors of eicosanoid metabolism on release of [3H]noradrenaline from the **human** neuroblastoma, SH-SY5Y
SO J. Neurochem. (1993), 60(4), 1365-71
CODEN: JONRA9; ISSN: 0022-3042
AB Nordihydroguaiaretic acid (NDGA: a lipoxygenase inhibitor), LY-270766 (an inhibitor of 5-lipoxygenase), and the diacylglycerol lipase inhibitor RG 80267 completely eliminated potassium-evoked release of [3H]-noradrenaline ([3H]NA) from the **human** neuroblastoma clone SH-SY5Y with IC50 values of 10, 15, and 30 mM, resp. In contrast, these inhibitors only partially inhibited carbachol-evoked release and had little effect on the calcium ionophore A23187-evoked release of NA in this cell line. Arachidonic acid partially inhibited potassium- and A23187-evoked release but did not reverse the inhibition of potassium-evoked release obsd. in the presence of RG 80267. These studies suggest that arachidonic acid (or its lipoxygenase **products**) are not important intermediates in the regulation of exocytosis in SH-SY5Y. This conclusion is strengthened by the authors studies in which SH-SY5Y cells were grown in medium supplemented with bovine serum albumin-linoleic acid (50 .mu.M). Under these conditions there was a selective increase in the content of membrane polyunsatd. fatty acids of the .omega.6 series, including arachidonic acid; however, these changes did not effect potassium-, veratridine-, carbachol-, or calcium ionophore-evoked release of [3H]NA.

L12 ANSWER 29 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1993:165780 CAPLUS
DOCUMENT NUMBER: 118:165780
TITLE: Desaturation and chain elongation of n-3 and n-6 polyunsaturated fatty acids in the **human** CaCo-2 cell line
AUTHOR(S): Chen, Qi; Nilsson, Ake
CORPORATE SOURCE: Cell Biol. Dep. 1, Univ. Hospital, Lund, Swed.
SOURCE: Biochim. Biophys. Acta (1993), 1166(2-3), 193-201
CODEN: BBACAQ; ISSN: 0006-3002
DOCUMENT TYPE: Journal
LANGUAGE: English
TI Desaturation and chain elongation of n-3 and n-6 polyunsaturated fatty acids in the **human** CaCo-2 cell line
SO Biochim. Biophys. Acta (1993), 1166(2-3), 193-201
CODEN: BBACAQ; ISSN: 0006-3002
AB **Human** CaCo-2 cells were incubated with [14C]linoleic (18:2(n-6)), [14C]linolenic (18:3(n-3)) and [3H]eicosapentaenoic acid (20:5(n-3)), and the interconversion of the radioactive fatty acids to higher homologs and their acylation into triacylglycerols (TG) and phospholipids were examd. An active conversion of [14C]18:3 to [14C]20:5 and [14C]docosapentoenoic acid (22:5(n-3)) and of [3H]20:5 to [3H]22:5, but not to [3H]docosahexaenoic acid (22:6(n-3)) was obsd. In relation to the amts. that had been incorporated into cellular phospholipids and TG, the interconversion of [14C]18:3 clearly exceeded that of [14C]18:2. Addn. of 10-100 .mu.M 18:2 or 10-50 .mu.M arachidonic acid (20:4(n-6)) increased the percent interconversion of [14C]18:2 to [14C]20:4. For example, addn. of 50 .mu.M 20:4 increased the formation of [14C]20:4 from 4.4% to 5.9%, decreased the incorporation into phospholipids from 64.8% to 31.4% and increased the incorporation into TG from 8.8% to 28.8%. In contrast, addn. of 10-100 .mu.M 18:3 or 20:5 decreased the interconversion of both [14C]18:2 and [14C]18:3. For example, addn. of 50 .mu.M 20:5 decreased the formation of [14C]20:4 from [14C]18:2 from 4.4% to 0.9%, whereas the effects on the acylation reactions were very similar to those of 20:4. 20:5 Also decreased the formation of interconversion **products** from [14C]18:3. 18:2 And 20:4 caused a smaller decrease in the formation of [14C]20:5 and actually increased percent conversion to [14C]22:5. The percent conversion of [3H]20:5 to [3H]22:5 was also increased by the addn. of 50-100 .mu.M unlabeled 20:5. [14C]18:2 and [14C]18:3 were predominantly incorporated into phosphatidylcholine (PC)

whereas more of the radioactive 20:4, 20:5 and 22:5 was incorporated into phosphatidylethanolamine (PE). An active fatty acid interconversion catalyzed by .DELTA.6 and .DELTA.5 desaturases thus occurs in the **human** CaCo-2 cell line, whereas conversion of 20:5(n-3) to 22:6(n-3) could not be demonstrated. The desatn.-elongation pathway has a preference for 18:3(n-3) and is subjected to an efficient feedback regulation by 20:5(n-3). Formation of 22:5 increases with available 20:5 mass and by the presence of other polyunsatd. fatty acids competing with 20:5 for acylation into phospholipids.

L12 ANSWER 30 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1993:100957 CAPLUS
DOCUMENT NUMBER: 118:100957
TITLE: Minimum linolenic acid, and linoleic acid requirement for developing brain and various organs. Fatty acid composition of nervous membranes, control of enzymic activity, amplitude of electrophysiological parameters, resistance to poisons, and performance of learning tasks
AUTHOR(S): Bourre, J.; Dumont, O.; Piciotti, M.; Pascal, G.; Durand, G.
CORPORATE SOURCE: Hop. Fernand Widal, Paris, 75475, Fr.
SOURCE: Essent. Fatty Acids Total Parenter. Nutr. Int. Symp., Proc. Int. Symp. (1990), Meeting Date 1988, 23-44. Editor(s): Ghisolfi, Jacques. Libbey: Paris, Fr. CODEN: 57SXAZ
DOCUMENT TYPE: Conference
LANGUAGE: English
TI Minimum linolenic acid, and linoleic acid requirement for developing brain and various organs. Fatty acid composition of nervous membranes, control of enzymic activity, amplitude of electrophysiological parameters, resistance to poisons, and performance of learning tasks
SO Essent. Fatty Acids Total Parenter. Nutr. Int. Symp., Proc. Int. Symp. (1990), Meeting Date 1988, 23-44. Editor(s): Ghisolfi, Jacques. Publisher: Libbey, Paris, Fr. CODEN: 57SXAZ
AB Feeding **animals** with oils that have a low linolenic acid content results in serious anomalies in the brain. In all brain cells and organelles a reduced amt. of 22:6n-3 is compensated by an increase in 22:5n-6. Similar results are found in the liver. The speed at which it recuperates from these anomalies is extremely slow for brain cells, organelles and microvessels, in contrast with the liver. The nervous system is not heavily protected against deficiency nor has it priority in the satisfaction of its needs. Essential fatty acids for the brain could be those with very long chains as shown in cell culture. They are probably synthesized in the liver from linolenic acid. They can also be supplied directly by **food**. During the period of cerebral development there is a linear relation between the n-3 acid content of the brain and that of **food** until linolenic acid represents approx.200 mg/100 g of **food** (for 1100 mg linoleic acid). Beyond that point there is a plateau in the brain. Thus dietary requirements during brain development represent 0.4% calories for 18:3n-3 and 2.2% calories for 18:2n-6. These values are also correct for the liver. The level of 22:6n-3 in membranes is poorly affected by the dietary quantity of 18:2n-6 if at least 18:3n-3 represent 0.4% calories. A decrease in acids of the linolenic series in the membranes results in a 40% redn. of Na-K-ATPase in nerve terminals and a 20% redn. in 5'-nucleotidase in whole brain homogenate. A diet low in linolenic acid that leads to anomalies in the electroretinogram which disappear partially with age, and has little effect on motor activity, seriously affects learning tasks. Linolenic acid in the diet confers a greater resistance to certain neurotoxic agents (triethyltin, for example). In view of the relative metab. of man and the exptl. model **animal**, their rates of development, their brain body ratios, and the fatty acid compn. of their nerve membranes, it is possible to suppose that results obtained in the rat are also valid for **humans**.

L12 ANSWER 31 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1993:100589 CAPLUS
DOCUMENT NUMBER: 118:100589
TITLE: Dietary sources of conjugated dienoic isomers of linoleic acid, a newly recognized class of anticarcinogens
AUTHOR(S): Chin, S. F.; Liu, W.; Storkson, J. M.; Ha, Y. L.; Pariza, M. W.
CORPORATE SOURCE: Food Res. Inst., Univ. Wisconsin, Madison, WI, 53706, USA
SOURCE: J. Food Compos. Anal. (1992), 5(3), 185-97
CODEN: JFCAEE; ISSN: 0889-1575
DOCUMENT TYPE: Journal
LANGUAGE: English
TI Dietary sources of conjugated dienoic isomers of linoleic acid, a newly recognized class of anticarcinogens
SO J. Food Compos. Anal. (1992), 5(3), 185-97
CODEN: JFCAEE; ISSN: 0889-1575
AB An improved method for quantifying conjugated dienoic isomers of linoleic acid (CLA), anticarcinogenic in several **animal** models, was developed by refining methods of Y. L. Ha et al. (1989). CLA Me esters (from derivatization with 4% HCl in MeOH at 60.degree.) were sepd. by reversed-phase HPLC on an Ultrasphere-ODS column with an isocratic mobile phase of MeCN-H20 85:15%. 9-cis,11-trans-CLA was not detectable in seafood due to interfering substances. The method was used to produce a data base of >90 **food** items including meat, poultry, seafood, dairy **products**, plant oils, and infant and processed **foods**. The principal dietary sources of CLA are **animal products**. In general, meat from ruminants contains considerably more CLA than meat from nonruminants, with veal having the lowest and lamb the highest (2.7 vs 5.6 mg CLA/g fat). **Foods** derived from nonruminant **animals** were far lower in CLA content except for turkey. Seafood contained low amts. of CLA, ranging 0.3-0.6 mg CLA/g fat. By contrast dairy **products** (milk, butter, and yogurt) contained considerable amts. of CLA. Natural cheeses were also high in CLA. Among cheeses, those which were aged or ripened >10 mo had the lowest CLA content. CLA concns. in an assortment of processed cheeses did not vary much (av. 5.0 mg CLA/g fat). Plant oils contained far less CLA, ranging from 0.1 mg CLA/g fat (coconut oil) to 0.7 mg CLA/g fat (safflower oil). Processed, canned, and infant **foods** were comparable in CLA content to similar unprocessed **foods**. Values for **foods** that contained beef, lamb, and veal were generally high in CLA. However the 9-cis,11-trans-CLA isomer, believed to be the biol. active form, tended to be lower in cooked meats. In **animal** and dairy **products** the cis-9,trans-11 CLA isomer accounted for 75 and 90%, resp., of the total CLA; in plant oils <50% of the total CLA was the 9-cis,11-trans-CLA isomer. The results show that considerable differences occur in the CLA content of common **foods** and indicate the possibility of large variations in dietary intakes of CLA.

L12 ANSWER 32 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1991:654434 CAPLUS
DOCUMENT NUMBER: 115:254434
TITLE: Mass spectrometric structural analysis of fatty acid mixtures from biological material after capillary gas-chromatographic separation
AUTHOR(S): Petrzika, M.; Engst, W.; Macholz, R.
CORPORATE SOURCE: Zentralinst. Ernaehrung, Potsdam-Rehbruecke, O-1505, Fed. Rep. Ger.
SOURCE: Nahrung (1991), 35(5), 491-502
CODEN: NAHRAR; ISSN: 0027-769X
DOCUMENT TYPE: Journal
LANGUAGE: German
TI Mass spectrometric structural analysis of fatty acid mixtures from biological material after capillary gas-chromatographic separation

SO Nahrung (1991), 35(5), 491-502
CODEN: NAHRAR; ISSN: 0027-769X
AB The identification of mixts. of fatty acids from biol. materials is possible by electron impact ionization mass spectra of Me esters after their capillary gas chromatog. sepn. Mass spectra of pyrrolidine derivs. are used for the detn. of double bond positions in unsatd. fatty acids (satd., unsatd., branched, cyclic, hydroxy, oxo, epoxy and methoxy) and other compds. (alkanes, halogens, phthalates, ketones, aldehydes) were identified in yeast and bacterial biomasses, lipid-contg. **animal** tissues and **human** sera as well as fish and plant oils (77 prepns.).

L12 ANSWER 33 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1990:550074 CAPLUS
DOCUMENT NUMBER: 113:150074
TITLE: Changes in the polyunsaturated fatty acid profiles in Zellweger syndrome suggesting a new enzymic defect: delta-4 desaturase deficiency
AUTHOR(S): Martinez, Manuela
CORPORATE SOURCE: Lab. Cromatogr., Hosp. Infant. Vall d'Hebron, Barcelona, Spain
SOURCE: NATO ASI Ser., Ser. A (1989), 171(Diet. .omega.3 .omega.6 Fatty Acids), 369-72
CODEN: NALSDJ
DOCUMENT TYPE: Journal
LANGUAGE: English
TI Changes in the polyunsaturated fatty acid profiles in Zellweger syndrome suggesting a new enzymic defect: delta-4 desaturase deficiency
SO NATO ASI Ser., Ser. A (1989), 171(Diet. .omega.3 .omega.6 Fatty Acids), 369-72
CODEN: NALSDJ
AB The total fatty acid and plasmalogen compn. was studied in the erythrocytes, fibroblasts, brain, liver, and kidney of a 3-mo-old child after death from Zellweger syndrome. Sharp alterations in the compn. of polyunsatd. fatty acids in tissues and in the fatty acid patterns of phosphatidylethanolamines and phosphatidylcholines were found by GC. The most important change was an enormous decrease in 22:6(w-3) (docosahexaenoic acid) and 22:5(w-6) fatty acids which are **products** of .DELTA.4-desatn. This suggests a genetic defect in the enzyme .DELTA.4-desaturase in this peroxisomal disorder.

L12 ANSWER 34 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1989:207594 CAPLUS
DOCUMENT NUMBER: 110:207594
TITLE: Arachidonic acid-dependent peroxidative activation of carcinogenic arylamines by extrahepatic **human** tissue microsomes
AUTHOR(S): Flammang, Thomas J.; Yamazoe, Yasushi; Benson, R. Wayne; Roberts, Dean W.; Potter, David W.; Chu, David Z. J.; Lang, Nicholas P.; Kadlubar, Fred F.
CORPORATE SOURCE: Div. Biochem. Toxicol., Natl. Cent. Toxicol. Res., Jefferson, AR, 72079, USA
SOURCE: Cancer Res. (1989), 49(8), 1977-82
CODEN: CNREA8; ISSN: 0008-5472
DOCUMENT TYPE: Journal
LANGUAGE: English
TI Arachidonic acid-dependent peroxidative activation of carcinogenic arylamines by extrahepatic **human** tissue microsomes
SO Cancer Res. (1989), 49(8), 1977-82
CODEN: CNREA8; ISSN: 0008-5472
AB Prostaglandin H synthase (PHS), an arachidonic acid-dependent peroxidase, was implicated in the peroxidative activation of carcinogenic arom. amines in extrahepatic carcinogen target tissues of exptl. **animals**. The arachidonic acid-dependent activation of [3H]benzidine to DNA-bound **products** by microsomal prepns. from 75 normal **human** tissues obtained during necessary surgical procedures was examd. For

several samples of urinary bladder epithelium, prostatic epithelium, colonic mucosa, and peripheral lung tissue, an arachidonic acid-dependent, microsomal-catalyzed activation of benzidine was obsd.; and the activity could be inhibited appreciably by indomethacin, a known inhibitor of PHS. Little or no arachidonic acid-dependent activity was detected in **human** placenta, breast, or liver microsomes or the majority of colon microsomes. Substrate specificity was also examd. with purified ram PHS and with **human** bladder and with active colon prepns. Purified PHS catalyzed the activation of benzidine >> 2-naphthylamine, 2-amino-6-methyldipyrido[1,2-a:3',2'-d]imidazole > 4-maminobiphenyl > 2-amino-3-methylimidazo[4,5-f]quinoline > 3-amino-1-methyl-5H-pyrido[4,3-b]indole. In comparison, **human** bladder and colon microsomes catalyzed the activation of benzidine > 4-aminobiphenyl, 2-amino-6-methyldipyrido[1,2-a:3',2'-d]imidazole, 2-naphthylamine > 2-amino-3-methylimidazo[4,5-f]quinoline, 3-amino-1-methyl-5H-pyrido[4,3-b]indole. To confirm the occurrence of PHS antigen in **human** extrahepatic tissues, an avidin-biotin-amplified competitive enzyme-linked immunoabsorbent assay was developed with purified ram PHS and a com. available monoclonal antibody known to cross-react with **human** platelet PHS. The avidin/biotin-amplified ELISA, which detected nanogram quantities of ram PHS, clearly established the presence of the PHS protein in **human** bladder, prostate, and lung microsomes. In contrast, PHS antigen was not detected in the liver or placental microsomes. The interindividual and tissue-dependent variability of PHS and its role in arom. amine carcinogenesis are discussed.

L12 ANSWER 35 OF 35 MEDLINE
ACCESSION NUMBER: 1999233009 MEDLINE
DOCUMENT NUMBER: 99233009
TITLE: Lipid hydroperoxides inhibit nitric oxide production in RAW264.7 macrophages.
AUTHOR: Huang A; Li C; Kao R L; Stone W L
CORPORATE SOURCE: Department of Pediatrics and Physiology, James H. Quillen College of Medicine, East Tennessee State University, Johnson City 37614-0578, USA.
CONTRACT NUMBER: HL44591 (NHLBI)
SOURCE: FREE RADICAL BIOLOGY AND MEDICINE, (1999 Mar) 26 (5-6) 526-37.
Journal code: FRE. ISSN: 0891-5849.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199908
ENTRY WEEK: 19990802
TI Lipid hydroperoxides inhibit nitric oxide production in RAW264.7 macrophages.
SO FREE RADICAL BIOLOGY AND MEDICINE, (1999 Mar) 26 (5-6) 526-37.
Journal code: FRE. ISSN: 0891-5849.
AB The effects of oxidatively modified low density lipoprotein (oxLDL) on atherogenesis may be partly mediated by alterations in the production of nitric oxide (NO) by vascular cells. Lipid hydroperoxides (LOOH) and lysophosphatidylcholine (lysoPC) are the major primary **products** of LDL oxidation. The purpose of this study was to characterize the effects of oxLDL, LOOH and lysoPC on NO production and the expression of inducible nitric oxide synthase (iNOS) gene in lipopolysaccharide (LPS) stimulated macrophages. LDL was oxidized using an azo-initiator 2,2'-azobis (2-amidinopropane) HCl (ABAP) and **octadecadienoic** acid was oxidized by lipoxygenase to generate 13-hydroperoxyl **octadecadienoic** acid (13-HPODE). Our study showed that oxLDL markedly decreased the production of NO, the levels of iNOS protein and iNOS mRNA in LPS stimulated macrophages. The inhibition potential of oxLDL on NO production and iNOS gene expression depended on the levels of LOOH formed in oxLDL and was not due to oxLDL cytotoxicity. Furthermore, 13-HPODE markedly reduced NO production and iNOS protein levels, whereas lysoPC showed only slight reduction. The effects of 13-HPODE and lysoPC

did not require an acetylated LDL carrier. Our results suggest that 13-HPODE is a much more potent inhibitor of NO production and iNOS gene expression than lysoPC in LPS stimulated RAW264.7 macrophages.

12 ANSWER 11 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:504978 CAPLUS
DOCUMENT NUMBER: 131:157047
TITLE: Impact of novel methodologies on the analysis of conjugated linoleic acid(CLA). Implications of CLA feeding studies
AUTHOR(S): Mossoba, Magdi M.; Kramer, John K. G.; Yurawecz, Martin P.; Sehat, Najibullah; Roach, John A. G.; Eulitz, Klaus; Fritsche, Jan; Dugan, Michael E. R.; Ku, Yeoh
CORPORATE SOURCE: Center Food Safety Applied Nutrition, US Food Drug Administration, Washington, DC, 20204, USA
SOURCE: Fett/Lipid (1999), 101(7), 235-243
CODEN: FELIFX; ISSN: 0931-5985
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
TI Impact of novel methodologies on the analysis of conjugated linoleic acid(CLA). Implications of CLA feeding studies
SO Fett/Lipid (1999), 101(7), 235-243
CODEN: FELIFX; ISSN: 0931-5985
AB Interest in conjugated linoleic acid (CLA) has increased in the past decade as a result of reports of several health benefits related to its consumption. Naturally occurring CLA isomers are found in milk, dairy, and meat **products** from ruminants. Detailed isomeric compn. of CLA in different chem. and biol. matrixes had been hindered by the lack of adequate anal. techniques. New methodologies were developed and used to det. the distribution of major and minor geometric and positional CLA isomers in cheese, beef, cow milk, **human** adipose, and **human** milk. Base-catalyzed methylation was used. A novel Ag+-HPLC procedure was developed, which successfully resolved up to 16 isomers, The double bond configuration and position for CLA isomers were confirmed by gas chromatog. (GC)-direct deposition-Fourier transform IR spectroscopy and GC-electron ionization mass spectrometry, resp.: the incorporation of CLA isomers in tissues of **animals** fed CLA diets was also detd. Currently available anal. data suggest the need to re-evaluate prior CLA studies and their nutritional and biol. implications.
REFERENCE COUNT: 56
REFERENCE(S): (1) Ackman, R; Can Inst Food Sci Technol J 1981, V14, P103 CAPLUS
(2) Banni, S; J Nutr Biochem 1996, V7, P150 CAPLUS
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(4) Chin, S; J Food Comp Anal 1992, V5, P185 CAPLUS
(5) Chin, S; J Nutr 1994, V124, P2344 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 12 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:443244 CAPLUS
DOCUMENT NUMBER: 131:213561
TITLE: High-fat dairy **product** consumption increases .DELTA.9c,11t-18:2 (rumenic acid) and total lipid concentrations of **human** milk
AUTHOR(S): Park, Yongsoon; McGuire, Michelle K.; Behr, Rebecca; McGuire, Mark A.; Evans, Marc A.; Shultz, Terry D.
CORPORATE SOURCE: Department of Food Science and Human Nutrition, Washington State University, Pullman, WA, 99164-6376, USA
SOURCE: Lipids (1999), 34(6), 543-549
CODEN: LPDSAP; ISSN: 0024-4201

PUBLISHER: AOCS Press
DOCUMENT TYPE: Journal
LANGUAGE: English
TI High-fat dairy **product** consumption increases .DELTA.9c,11t-18:2 (rumenic acid) and total lipid concentrations of **human** milk
SO Lipids (1999), 34(6), 543-549
CODEN: LPDSAP; ISSN: 0024-4201
AB Conjugated **octadecadienoic** acids (C18:2, conjugated linoleic acids) are anticarcinogenic and may influence growth and nutrient partitioning. The C18:2 9-cis,11-trans isomer (rumenic acid, RA) is the most common isomer in **food** sources and **human** tissues. To det. if maternal diet can influence the milk RA concns., 16 breast feeding women participated in a 3-wk study. The women initially consumed minimal amts. of **foods** contg. RA during week 1, then consumed diets rich in high-fat dairy **foods** (contg. RA) during weeks 2 or 3. Milk was collected by complete breast expression twice during each exptl. week. The current and chronic RA intakes were estd. by 3-day dietary records and **food** frequency questionnaires, resp. Estd. chronic RA intakes ranged 49-659 mg/day. The dietary RA intake was greater during the high compared to the low dairy period (291.+-.75 vs. 15.+-.24 mg/day). The breast milk contained more RA during the high than the low dairy period (13.5.+-.0.1 vs. 8.2.+-.0.4 .mu.mol/g lipid). Milk lipid concns. were greater during the high than the low dairy period (46.6.+-.5.0 vs. 38.3.+-.1.6 mg/g milk). Multiple regression anal. suggested that body mass index was the primary predictor of milk RA and lipid concns. Thus, both lipid and RA concns. in **human** milk can be influenced by diet.
REFERENCE COUNT: 45
REFERENCE(S):
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(6) Chin, S; J Food Comp Anal 1992, V5, P185 CAPLUS
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ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 13 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:429636 CAPLUS
DOCUMENT NUMBER: 131:242475
TITLE: Similar effects of diets high in oleic or linoleic acids on coagulation and fibrinolytic factors in healthy **humans**
AUTHOR(S): Turpeinen, A. M.; Mutanen, M.
CORPORATE SOURCE: Department of Applied Chemistry and Microbiology (Nutrition), University of Helsinki, Helsinki, 00014, Finland
SOURCE: Nutr., Metab. Cardiovasc. Dis. (1999), 9(2), 65-72
CODEN: NMCDEE; ISSN: 0939-4753
PUBLISHER: Medikal Press
DOCUMENT TYPE: Journal
LANGUAGE: English
TI Similar effects of diets high in oleic or linoleic acids on coagulation and fibrinolytic factors in healthy **humans**
SO Nutr., Metab. Cardiovasc. Dis. (1999), 9(2), 65-72
CODEN: NMCDEE; ISSN: 0939-4753
AB Dietary monounsatd. fatty acids (MUFA) are generally beneficial, but their hemostatic effects are not much known. We compared the effects of oleic acid (OA) and linoleic acid (LA) on variables related to blood coagulation and fibrinolysis in 38 healthy **humans** (20 women, 18 men; mean age 27 yr). They consumed a satd. fat baseline diet for 4 wk and then were switched to a high-LA diet (11.5 energy%) or a high-OA diet (18.0 energy%) for 4 more weeks when nearly all **food** was provided during the whole day. A control group of 13 subjects consumed their habitual diet throughout the study. No differences between the OA and LA diets were found in blood plasma levels of fibrinogen, plasminogen activator inhibitor, antithrombin III, von Willebrand factor antigen, or

D-dimers. Factor FVII coagulant activity was lower with the OA diet. The results indicate largely similar effects for OA and LA on blood coagulation and fibrinolysis factors in **humans**. The effects of dietary fatty acid compn. on FVII coagulant activity should be further studied.

REFERENCE COUNT: 45
REFERENCE(S):
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ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 14 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:220782 CAPLUS
DOCUMENT NUMBER: 130:222409
TITLE: Fat component of milk nourishment and a baby **food**
INVENTOR(S): Mourek, Jindrich; Koudelova, Jitka; Smidova, Ludmila; Mydlilova, Anna; Base, Jiri
PATENT ASSIGNEE(S): Czech Rep.
SOURCE: Czech Rep., 14 pp.
CODEN: CZXXED
DOCUMENT TYPE: Patent
LANGUAGE: Czech
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| CZ 281096 | B6 | 19960612 | CZ 1994-1591 | 19940630 |

TI Fat component of milk nourishment and a baby **food**
SO Czech Rep., 14 pp.
CODEN: CZXXED
AB Fat components with fatty acid compn. suitable for dietary prepns. for pregnant women, newborns, and infants are described. The fat additive contains 60-85% milk fat, 10-35% vegetable oil (1:1 mixt. of soybean and sunflower oil), and 3-5% fish oil. The additive contains 16.39-22.28% linoleic acid (of total fatty acids), 1.98-2.28% linolenic acid, 0.08-0.18% arachidonic acid, 0.58-0.96% eicosapentaenoic acid, 0.38-0.63% docosahexaenoic acid, 0.02-0.04% docosatetraenoic acid, 0.10-0.15% docosapentaenoic acid, and 0.05-0.10% eicosatetraenoic acid; the rest up to 100% are common fatty acids of the milk fat.

L12 ANSWER 15 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:38200 CAPLUS
DOCUMENT NUMBER: 130:235121
TITLE: Cloning, expression, and nutritional regulation of the mammalian .DELTA.-6 desaturase
AUTHOR(S): Cho, Hyekyung P.; Nakamura, Manabu T.; Clarke, Steven D.
CORPORATE SOURCE: Program of Nutritional Sciences and the Institute for Cellular and Molecular Biology, The University of Texas-Austin, Austin, TX, 78712, USA
SOURCE: J. Biol. Chem. (1999), 274(1), 471-477
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English
TI Cloning, expression, and nutritional regulation of the mammalian .DELTA.-6 desaturase
SO J. Biol. Chem. (1999), 274(1), 471-477
CODEN: JBCHA3; ISSN: 0021-9258

AB Arachidonic acid (20:4(n-6)) and docosahexaenoic acid (22:6(n-3)) have a variety of physiol. functions that include being the major component of membrane phospholipid in brain and retina, substrates for eicosanoid prodn., and regulators of nuclear transcription factors. The rate-limiting step in the prodn. of 20:4(n-6) and 22:6(n-3) is the desatn. of 18:2(n-6) and 18:3(n-3) by .DELTA.-6 desaturase. The authors describe the cloning, characterization, and expression of a mammalian .DELTA.-6 desaturase. The open reading frames for mouse and **human** .DELTA.-6 desaturase each encode a 444-amino acid peptide, and the two peptides share an 87% amino acid homol. The amino acid sequence predicts that the peptide contains two membrane-spanning domains as well as a cytochrome b5-like domain that is characteristic of nonmammalian .DELTA.-6 desaturases. Expression of the open reading frame in rat hepatocytes and Chinese hamster ovary cells instilled in these cells the ability to convert 18:2(n-6) and 18:3(n-3) to their resp. **products**, 18:3(n-6) and 18:4(n-3). When mice were fed a diet contg. 10% fat, hepatic enzymic activity and mRNA abundance for hepatic .DELTA.-6 desaturase in mice fed corn oil were 70 and 50% lower than in mice fed triolein. Finally, Northern anal. revealed that the brain contained an amt. of .DELTA.-6 desaturase mRNA that was several times greater than that found in other tissues including the liver, lung, heart, and skeletal muscle. The RNA abundance data indicate that prior conclusions regarding the low level of .DELTA.-6 desaturase expression in nonhepatic tissues may need to be reevaluated.

REFERENCE COUNT: 43

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(5) Carlson, S; Proc Natl Acad Sci USA 1993, V90, P1073 CAPLUS
(6) Chomczynski, P; Anal Biochem 1987, V162, P156 CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 16 OF 35 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1998:780572 CAPLUS
DOCUMENT NUMBER: 130:153031
TITLE: Effect of the fat composition of a single meal on the composition and cytotoxic potencies of lipolytically-releasable free fatty acids in postprandial plasma
AUTHOR(S): Hong Chung, Byung; Hennig, Bernhard; Cho, B. H. Simon; Darnell, Betty E.
CORPORATE SOURCE: Department of Medicine, Atherosclerosis Research Unit, University of Alabama at Birmingham, South Birmingham, AL, 35294-0012, USA
SOURCE: Atherosclerosis (Shannon, Irel.) (1998), 141(2), 321-332
CODEN: ATHSBL; ISSN: 0021-9150
PUBLISHER: Elsevier Science Ireland Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

TI Effect of the fat composition of a single meal on the composition and cytotoxic potencies of lipolytically-releasable free fatty acids in postprandial plasma

SO Atherosclerosis (Shannon, Irel.) (1998), 141(2), 321-332
CODEN: ATHSBL; ISSN: 0021-9150

AB Ingestion of a meal increases blood plasma levels of triglyceride (TG)-rich lipoproteins through the secretion of intestine-derived chylomicrons and liver-derived very-low-d. lipoproteins (VLDL). We have detd. the effects of the fat compn. of a single meal on the compn. of TG in TG-rich lipoproteins (VLDL+chylomicrons) and circulating and lipolytically-releasable free fatty acids (FFA) in postprandial (PP) plasma and on the cytotoxic potencies of the lipolytically-released FFA to cultured arterial wall cells. PP lipemia was induced by feeding fasted

normolipidemic **humans** with meals rich in satd. fat (SF) or polyunsatd. fat (PUF). Each meal provided 65% of energy as fat, and polyunsatd. to satd. fatty acid ratios (P/S) of the SF and PUF in the meals were 0.40 and 2.49, resp. The mean P/S of TG in TG-rich lipoproteins (1.43) and circulating FFA (1.46) in 4-h PP plasma of PUF were higher than those in PP plasma of SF (0.44 and 0.59, resp.) or those in VLDL and FFA in fasting plasma (0.52 and 0.53, resp.). In vitro lipolysis of fasting and PP blood serum by purified bovine milk lipoprotein lipase (LpL) resulted in a marked (8.8-12.3-fold) increase in the serum FFA level. The P/S of serum FFA in post-lipolysis fasting and PP serum were consistently higher than that of FFA or that of TG assocd. with TG-rich lipoproteins in prelipolysis fasting and PP serum, indicating that polyunsatd. TG in VLDL and/or chylomicrons is more susceptible to lipolysis than satd. TG. When the post-lipolysis serum interacted with cultured endothelial cells and mouse peritoneal macrophages (MPM), the lipolytically-released FFA in PP serum of SF and PUF disrupted the barrier function of endothelial cells and were cytotoxic to cultured MPM; FFA in post-lipolysis fasting serum were not cytotoxic. FFA in post-lipolysis PP serum of PUF were consistently more potent than in post-lipolysis PP serum of SF. All long-chain monounsatd. FFA and polyunsatd. FFA, but not satd. FFA, incorporated into lipoproteins (LDL) were cytotoxic to cultured MPM. Despite the generally accepted belief that SF is more atherogenic than PUF, the present study provides in vitro evidence that the lipolytic remnant **products** of TG-rich lipoproteins produced after a meal rich in PUF are more injurious to arterial wall cells than those produced after a meal rich in SF.

REFERENCE COUNT: 59

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ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 17 OF 35 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1998:695120 CAPLUS
DOCUMENT NUMBER: 130:80816

TITLE: No effects on insulin sensitivity but diverging effects on serum free fatty acid concentrations by addition of seafood **products** containing either n-3 or n-6 fatty acids

AUTHOR(S): Gustafsson, I.-B.; Ohrvall, M.; Ekstrand, B.; Vessby, B.
CORPORATE SOURCE: Department of Geriatrics, Uppsala University, Uppsala, S-751 25, Swed.

SOURCE: Nutr., Metab. Cardiovasc. Dis. (1998), 8(3), 145-153
CODEN: NMCDEE; ISSN: 0939-4753
PUBLISHER: Medikal Press
DOCUMENT TYPE: Journal
LANGUAGE: English

TI No effects on insulin sensitivity but diverging effects on serum free fatty acid concentrations by addition of seafood **products** containing either n-3 or n-6 fatty acids

SO Nutr., Metab. Cardiovasc. Dis. (1998), 8(3), 145-153
CODEN: NMCDEE; ISSN: 0939-4753

AB The metabolic effects of a seafood diet fortified with n-3 fatty acids and its effects on insulin sensitivity were studied during two 4-wk periods (with a 4-wk washout in between) with 13 healthy subjects (8 men, 5 women) 47.5.+-.7 yr old. The subjects were given seafood **products** fortified with fish oil contg. 2 g long-chain n-3 fatty acids daily or the corresponding amt. of sunflower oil (rich in n-6 fatty acids) during the control period. Blood serum very-low-d. lipoprotein (VLDL) levels decreased by .apprx.40% in both diet periods and fasting insulin concn.

decreased by 22-24%. No effects were seen on blood pressure or peripheral insulin sensitivity with either diet. The serum free fatty acid levels decreased by 31% with the seafood/fish oil diet and by 6% with the seafood/sunflower oil diet. Adding .alpha.-tocopherol and ascorbic acid to the seafood/fish oil diet increased the serum .alpha.-tocopherol concns., which seemed to protect blood lipids from oxidn. as the plasma malondialdehyde concns. were unchanged. Seafood **products** enrichment with fish oil is a natural and easy way to ensure an optimal intake of long-chain n-3 fatty acids even in people who do not eat fish. Thus, daily supplementation of seafood **products** with 2 g of n-3 fatty acids, compared with sunflower oil, decreased the blood serum free fatty acid levels but did not affect blood pressure or peripheral insulin sensitivity when given during a 4-wk period to healthy subjects.

REFERENCE COUNT: 40

REFERENCE(S):
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(11) Eritsland, J; Scand J Clin Lab Invest 1994, V54, P273 CAPLUS
(12) Goh, Y; Diabetologia 1997, V40, P45 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 18 OF 35 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1998:316665 CAPLUS
DOCUMENT NUMBER: 129:40529
TITLE: **Human** fatty acid synthesis is reduced after the substitution of dietary starch for sugar
AUTHOR(S): Hudgins, Lisa C.; Seidman, Cynthia E.; Diakun, Jolanta; Hirsch, Jules
CORPORATE SOURCE: Lab. Human Behavior Metab., Rockefeller University, New York, NY, 10021, USA
SOURCE: Am. J. Clin. Nutr. (1998), 67(4), 631-639
CODEN: AJCNAC; ISSN: 0002-9165
PUBLISHER: American Society for Clinical Nutrition
DOCUMENT TYPE: Journal
LANGUAGE: English

TI **Human** fatty acid synthesis is reduced after the substitution of dietary starch for sugar

SO Am. J. Clin. Nutr. (1998), 67(4), 631-639
CODEN: AJCNAC; ISSN: 0002-9165

AB Using new nonisotopic and isotopic methods, we showed previously that fatty acid synthesis was markedly stimulated in body wt.-stable normal volunteers by a very-low-fat diet with 10% of energy as fat and 75% as short glucose polymers. In this study, we detd. whether fatty acid synthesis was equally stimulated by a very-low-fat solid diet made with **foods** consumed typically. Four normal volunteers consumed the same very-low-fat diet for 25 d and then an isoenergetic solid **food** diet with 10% of energy as fat and 75% as starch, simple sugars, or fiber for 25 d. To measure the fatty acid synthesis, the fatty acid compn. of the diets were matched to the compn. of each subject's adipose tissue and compared with the compn. of VLDL-triacylglycerols. In all subjects, large increases in newly formed palmitate and decreases in linoleate in VLDL-triacylglycerols were quickly reversed by the solid **food** diet, and the fraction of the de novo synthesized fatty acids in fasting VLCL-triacylglycerols decreased from 30-54% to 0-1%. In the second group of subjects, the stimulation of fatty acid synthesis by the formula diet with 75% glucose polymers was similarly reduced by a formula diet with amts. of fat, starch, and sugar chosen to mimic those of the solid **food** diet, but persisted after the addn. of fiber or a diet with 75% sugar. Thus, increases in fatty acid synthesis and palmitate-rich/linoleate-poor VLDL-triacylglycerols induced by very-low-fat/high-sugar diets may be reduced by the substitution of dietary starch by sugar with potentially beneficial effects on cardiovascular health.

L12 ANSWER 19 OF 35 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1997:746763 CAPLUS
DOCUMENT NUMBER: 128:46558
TITLE: Production of 13-hydroxyoctadecadienoic acid (13-HODE) by prostate tumors and cell lines
AUTHOR(S): Spindler, Stephen A.; Sarkar, Fazlul H.; Sakr, Wael A.; Blackburn, Mary L.; Bull, Arthur W.; LaGattuta, Mark; Reddy, Ramesh G.
CORPORATE SOURCE: Oxford Biomedical Research, Inc., Rochester Hills, MI, 48309, USA
SOURCE: Biochem. Biophys. Res. Commun. (1997), 239(3), 775-781
CODEN: BBRCA9; ISSN: 0006-291X
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English

TI Production of 13-hydroxyoctadecadienoic acid (13-HODE) by prostate tumors and cell lines

SO Biochem. Biophys. Res. Commun. (1997), 239(3), 775-781
CODEN: BBRCA9; ISSN: 0006-291X

AB The major lipoxygenation **product** derived from linoleic acid, 13-(S)-hydroxyoctadecadienoic acid (13-HODE), has been shown to be involved in cell proliferation and differentiation in a no. of systems. Rapid detection of picogram amts. of this bioactive lipid in biol. samples, however, has been hindered due to lack of immunol. reagents. In the current report, the authors have used a polyclonal antibody specific for 13-(S)-HODE to detect this bioactive lipid for the first time in **human** prostate adenocarcinoma specimens (PCa) and the prostate cancer cell lines LNCaP and PC-3 by enzyme immunoassay. In addn., the authors have verified the quantitation of 13-HODE by chiral-phase HPLC and examd. the levels of lipoxygenase expression by Western, Northern, and RT-PCR anal. Immunohistochem. detectable 13-HODE was obsd. in **human** PCa, whereas adjacent normal tissue showed no immunoreactivity. The presence of 15-lipoxygenase was evident by Western and RT-PCR anal. in both LNCaP and PC-3 cells, while Northern blot anal. showed the presence of 15-lipoxygenase message in LNCaP cells but failed to detect any 15-lipoxygenase message in PC-3 cells. In contrast, quantitation of 13-HODE by enzyme immunoassay and chiral-phase HPLC showed significant levels of the compd. in PC-3 cells but minimal enzymically produced 13-HODE in LNCaP cells. These data provide a link between linoleic acid metab. and the development or progression of prostate cancer.

L12 ANSWER 20 OF 35 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1997:390697 CAPLUS
DOCUMENT NUMBER: 127:2744
TITLE: Method for ex vivo proliferation and differentiation of adult pancreatic islet cells, media useful therefor and uses thereof
INVENTOR(S): Soon-Shiong, Patrick; Varsanyi-Nagy, Maria; Ferreri, Kevin; Moloney, Molly; Heintz, Roswitha
PATENT ASSIGNEE(S): Vivorx, Inc., USA; Soon-Shiong, Patrick; Varsanyi-Nagy, Maria; Ferreri, Kevin; Moloney, Molly; Heintz, Roswitha
SOURCE: PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9716536 | A1 | 19970509 | WO 1996-US16396 | 19961011 |

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN,

AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG

AU 9674439 A1 19970522 AU 1996-74439 19961011
PRIORITY APPLN. INFO.: US 1995-558591 19951030
WO 1996-US16396 19961011

TI Method for ex vivo proliferation and differentiation of adult pancreatic islet cells, media useful therefor and uses thereof

SO PCT Int. Appl., 68 pp.
CODEN: PIXXD2

AB A method for inducing the proliferation and differentiation of neonatal and/or adult **human** or non-**human** pancreatic islets to produce a **product** useful, for example, as a therapeutic agent for treatment of diabetes was developed. The method involves a series of complex cell culture media contg. necessary nutrients and growth factors, a **human** cytokine (hepatocyte growth factor or scatter factor), a microgravity culture vessel for promoting 3-dimensional growth, and mol. biol. assays for measuring insulin promoter activity. A method for providing a hybrid organoid comprising a combination of donor and recipient cell types is also described.

L11 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1998:501280 CAPLUS
DOCUMENT NUMBER: 129:163107
TITLE: Synthetic triglycerides based on **conjugated** linoleic acid, their manufacture and use
INVENTOR(S): Timmermann, Franz; Gaupp, Rolf; Gierke, Juergen; Von Kries, Rainer; Adams, Wolfgang; Sander, Andreas
PATENT ASSIGNEE(S): Henkel K.-G.a.A., Germany
SOURCE: Ger., 4 pp.
CODEN: GWXXAW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| DE 19718245 | C1 | 19980730 | DE 1997-19718245 | 19970430 |
| WO 9849129 | A1 | 19981105 | WO 1998-EP2332 | 19980421 |
| W: AU, BR, CA, JP, KR, NZ, US | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| AU 9874313 | A1 | 19981124 | AU 1998-74313 | 19980421 |
| EP 980349 | A1 | 20000223 | EP 1998-921473 | 19980421 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |

PRIORITY APPLN. INFO.: DE 1997-19718245 19970430
WO 1998-EP2332 19980421

OTHER SOURCE(S): MARPAT 129:163107

AB R1OCH2CH(OR2)CH2OR3 (R1-R3 = residue of C6-24 fatty acid; .gtoreq.1 of R1-R3 = **conjugated** linoleic acid residue), useful as **food** additives and drug adjuvants, were manufd. by esterification of **glycerol** or transesterification of glycerides with mixts. of fatty acids. contg. .gtoreq.50% **conjugated** linoleic acid. For example, heating **glycerol** with **conjugated** linoleic acid in the presence of Sn shavings at 150-210.degree. and reduced pressure under N gave a product comprising **conjugated** linoleic acid triglyceride 95, diglyceride 3 and monoglyceride 2%. The product was stabilized with Covi-ox T 70.

L11 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1992:79888 CAPLUS
DOCUMENT NUMBER: 116:79888
TITLE: Antifreeze (glyco)peptides from the fluid or serum of Arctic and Antarctic fish for protecting and preserving plants and animals and other biological materials
INVENTOR(S): Rubinsky, Boris; Devries, Arthur L.
PATENT ASSIGNEE(S): University of California, Oakland, USA
SOURCE: PCT Int. Appl., 99 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| WO 9110361 | | A1 | 19910725 | WO 1991-US351 | 19910117 |
| | W: AU, BB, BG, BR, CA, DK, FI, HU, JP, KP, KR, LK, MC, MG, MW, NO, RO, SD, SU, US | | | | |
| | RW: AT, BE, BF, BJ, CF, CG, CH, CM, ES, FR, GA, GB, GR, IT, LU, ML, MR, NL, SE, SN, TD, TG | | | | |
| CA 2076380 | | AA | 19920718 | CA 1992-2076380 | 19820117 |
| AU 9173354 | | A1 | 19910805 | AU 1991-73354 | 19910117 |
| AU 659795 | | B2 | 19950601 | | |
| EP 511317 | | A1 | 19921104 | EP 1991-904854 | 19910117 |
| EP 511317 | | B1 | 19980422 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE | | | | |
| JP 05503706 | | T2 | 19930617 | JP 1991-505533 | 19910117 |
| JP 08009521 | | B4 | 19960131 | | |
| AT 165208 | | E | 19980515 | AT 1991-904854 | 19910117 |
| ES 2117640 | | T3 | 19980816 | ES 1991-904854 | 19910117 |
| WO 9212722 | | A1 | 19920806 | WO 1992-US452 | 19920117 |
| | W: AU, BB, BG, BR, CA, CS, DK, FI, HU, JP, KP, KR, LK, MG, MN, MW, NO, RO, RU, SD, US | | | | |
| | RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GN, GR, IT, LU, MC, ML, MR, NL, SE, SN, TD, TG | | | | |
| AU 9215670 | | A1 | 19920827 | AU 1992-15670 | 19920117 |
| PRIORITY APPLN. INFO.: | | | | US 1990-466050 | 19900117 |
| | | | | US 1990-562461 | 19900803 |
| | | | | WO 1991-US351 | 19910117 |
| | | | | WO 1992-US452 | 19920117 |

AB A compn. of biol. compatible substances, esp. antifreeze (glyco)peptides of Arctic and Antarctic fish, worms, insects, etc., in an aq. soln. is useful in the protection and preservation of biol. materials, including proteins, enzymes, lipids, cell membranes, animal or plant cells, microorganisms, tissues, organs, whole animals or whole plants, subjected to nonphysiol. temps., either higher or lower, than the normal physiol. temps. or to nonphysiol. chem. environments. The compn. is also useful in the medical treatment of tissues injured by thermal, radiation, or chem. conditions; in the preservation of **food**; in cosmetics used to restore, preserve, or repair skin; in medical treatment of diseases assocd. with imbalance of the cell Na-K pump; etc. Mouse and pig embryos were introduced into apparent vitrification soln. contg. propylene glycol, **glycerol**, fetal calf serum, and sucrose in supplemented phosphate-buffered saline for freezing to -130.degree. and thawing. When antifreeze glycopeptide was added there was very high survival of the embryos; without the glycopeptide, there were no survivals.

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L11 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1998:501280 CAPLUS
DOCUMENT NUMBER: 129:163107
TITLE: Synthetic triglycerides based on **conjugated** linoleic acid, their manufacture and use
INVENTOR(S): Timmermann, Franz; Gaupp, Rolf; Gierke, Juergen; Von Kries, Rainer; Adams, Wolfgang; Sander, Andreas
PATENT ASSIGNEE(S): Henkel K.-G.a.A., Germany
SOURCE: Ger., 4 pp.
CODEN: GWXXAW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| DE 19718245 | C1 | 19980730 | DE 1997-19718245 | 19970430 |
| WO 9849129 | A1 | 19981105 | WO 1998-EP2332 | 19980421 |
| W: AU, BR, CA, JP, KR, NZ, US | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| AU 9874313 | A1 | 19981124 | AU 1998-74313 | 19980421 |
| EP 980349 | A1 | 20000223 | EP 1998-921473 | 19980421 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| PRIORITY APPLN. INFO.: | | | DE 1997-19718245 | 19970430 |
| | | | WO 1998-EP2332 | 19980421 |

OTHER SOURCE(S): MARPAT 129:163107
AB R1OCH2CH(OR2)CH2OR3 (R1-R3 = residue of C6-24 fatty acid; .gtoreq.1 of R1-R3 = **conjugated** linoleic acid residue), useful as **food** additives and drug adjuvants, were manufd. by esterification of **glycerol** or transesterification of glycerides with mixts. of fatty acids. contg. .gtoreq.50% **conjugated** linoleic acid. For example, heating **glycerol** with **conjugated** linoleic acid in the presence of Sn shavings at 150-210.degree. and reduced pressure under N gave a product comprising **conjugated** linoleic acid triglyceride 95, diglyceride 3 and monoglyceride 2%. The product was stabilized with Covi-ox T 70.

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L8 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:243646 CAPLUS
DOCUMENT NUMBER: 131:31404
TITLE: Evidence that the trans-**10**, cis-**12** isomer of **conjugated** linoleic acid induces body composition changes in mice
AUTHOR(S): Park, Yeonhwa; Storkson, Jayne M.; Albright, Karen J.; Liu, Wei; Pariza, Michael W.
CORPORATE SOURCE: Food Research Institute, Department of Food Microbiology and Toxicology, University of Wisconsin-Madison, Madison, WI, 53706, USA
SOURCE: Lipids (1999), 34(3), 235-241
CODEN: LPDSAP; ISSN: 0024-4201
PUBLISHER: AOCS Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We investigated the effects of **conjugated** linoleic acid (CLA) prepns., which were enriched for the cis-9, trans-11 CLA isomer or the trans-**10**, cis-**12** CLA isomer, on body compn. in mice. Body compn. changes (reduced body fat, enhanced body water, enhanced body protein, and enhanced body ash) were assocd. with feeding the trans-**10**, cis-**12** CLA isomer. In cultured 3T3-L1 adipocytes, the trans-**10**, cis-**12** isomer reduced lipoprotein lipase activity, intracellular triacylglycerol and **glycerol**, and enhanced **glycerol** release into the medium. By contrast, the cis-9, trans-11 and trans-9, trans-11 CLA isomers did not affect these biochem. activities. We conclude that CLA-assocd. body compn. change results from feeding the trans-**10**, cis-**12** isomer.

L11 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1998:682079 CAPLUS
DOCUMENT NUMBER: 129:289495
TITLE: Foods and oral compositions having enhanced mouthfeel
INVENTOR(S): Nilsen, Stephen James; Walden, Gary Lyle
PATENT ASSIGNEE(S): The Procter and Gamble Co., USA
SOURCE: PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9843497 | A2 | 19981008 | WO 1998-IB385 | 19980319 |
| WO 9843497 | A3 | 19981230 | | |
| W: CN, CZ, HU, JP, MX, PL, RU, SK, VN | | | | |
| RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| US 5885594 | A | 19990323 | US 1997-825041 | 19970327 |
| EP 969742 | A2 | 20000112 | EP 1998-907086 | 19980319 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI | | | | |
| PRIORITY APPLN. INFO.: | | | US 1997-825041 | 19970327 |
| | | | WO 1998-IB385 | 19980319 |

AB The present invention relates to foods and oral compns. having enhanced organoleptic characteristics of fattiness, creaminess, soothing, satisfaction, and full mouthfeel, and comprises **acylglycerol** compds. having substituents R1, R2, and R3 attached at the positions of the OH- groups of a **glycerol** backbone. The substituents R1 and R2 are independently selected from **conjugated** C16-22 polyunsatd. fatty acids and R3 is selected from the group consisting of R1, OH, PO3HR4, and C6-12 carboxylic acids, wherein R4 is selected from the group consisting of OH, choline, inositol, serine, and ethanolamine. The compns. do not contain free **conjugated** polyunsatd. fatty acids.

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